## (d:) REMARKS

By the Action, the first in the present application, the Examiner objected to the drawings for failure to include a reference numeral (21) mentioned in the specification and for inclusion of a reference character (11) in the drawings but failing to mention the character in the specification. The specification was objected to for an error relating to a reference character called out as 682 in the specification and 681 in the drawing. Claims 1, 3, 16, 20 and 21 were objected to relating to informalities including misspellings, inclusion of acronyms and one undefined word (claim 20). All of the claims were rejected as obvious under 35 U.S.C. 103(a) based on various combinations of references.

The Specification has been amended to overcome the objections relating to the drawings. With respect to reference characters 11 and 21 it may be observed Fig. 1 and most of the description relating to the figure was intended to give a description of the invention's environment of application and hence much of the description and drawing elements were taken from another application. The "definable remote interface module 21" is an element of hardware the presence or absence of which is unimportant to understanding the present invention and which does not relate to the best mode for carrying out the invention. Mention of the reference character has been eliminated from the specification. Similarly, the reference characters 11 and 13 were carried over from an earlier case and were intended only to refer to body elements of a vehicle. The failure to mention a part corresponding to reference character 11 has been handled by the expedient of amending the specification to refer to the vehicle as "11" and linking "13" to the vehicle chassis. The specification has been in a number of other minor ways, mostly to correct typographical errors some of which occurred in the original application and some of which appeared in the printed patent application (US 2002/0161820). Similarly the claims have been amended to overcome the formality objections by corrections of misspellings, the replacement of acronyms and, in the case of claim 20, replacement of the "word" "hard

cost" with "software".

The present invention provides a programming tool which relieves a human programmer of needing to know the "nuances of the particular network class used on a motor vehicle". (See paragraph [0011]). The programmer is presented with a "uniform abstraction" applicable to any network which has been "acquired" by the system of the present invention. The "Abstraction" is achieved by representing the possible network types which may be encountered by complete models of those network types. (See paragraph [0011]).

The context of the present invention in part forms the basis for distinguishing the invention from the references applied by the Examiner. The context is particularly significant for distinguishing the claimed invention from Wewalaarachchi et al. (US-6,571,140), and undermines modification of the '104 patent by Drottar (US-6,170,025), applicants' admitted prior art or Williams.

In the Wewalaarachchi '104 patent a major concern was to avoid an information access bottleneck by remote clients to a central database in a real time building monitoring and control system. See col. 2, lines 5-13 of the Wewalaarachchi '104 patent. To this end the Wewalaarachchi '104 patent is directed to the "dynamic publication of data", that is, the pass through of selected data from a network to a remote client. The selection of the data is done on the basis of what data a particular client has registered for. Because data from devices and sensors may be in proprietary formats, the gateway between the network and remote work stations converts all data to a standard format. The Wewalaarachchi '104 patent does not appear to relate to the programming of the actual devices.

A data bottleneck is not the primary issue in the present application. In the present application the first concern is with programming of network nodes. This does not occur

under real time response demands. Although diagnostic work may be done under real time, the present application contemplates that access to a vehicle network will be by a single computer (See Fig. 2 and related discussion at paragraph [0022]). Vehicular CAN applications are not generally characterized by excessive data traffic, and the computer used for programming and diagnostics is directly (though temporarily) connected by a network adaptor to the vehicle network.

The present invention is described in its Specification as an implementation of a "component object model and interface" (see paragraph [0023]. The Wewalaarachchi '104 patent criticizes the object oriented approach which the present application uses to present different classes of networks at a high level of abstraction. The object oriented approach and modeling are viewed as inappropriate to the issues faced by Wewalaarachchi. Referring to the Wewalaarachchi '104 patent at column 2, lines 27 and following it states that:

> Another solution [to the issues of over centralization and data flow bottlenecks in building management systems] is an object-oriented framework for the development of personalized workflow applications that provide real time functionality, while maintaining scalability to any number of users, and integration with existing legacy application systems. However, such solutions require that the users *model up front*, the environment of the real-time devices that need to be monitored and/or controlled (emphasis added).

Where the Wewalaarachchi '104 patent seeks to avoid up front modeling, the present invention explicitly, and exhaustively, depends upon doing so. Most of the controllable functionality of a motor vehicle is recharacterized as abstract functional objects and interfaces. As stated at paragraph [0090], the present invention provides an increase in abstraction through a translation model and detailed application of component object models. The direction taken by Wewalaarachchi to avoid modeling also undermines

combination of the reference with the teaching of Williams et al in the Component Object Model reference and the admitted prior art.

The rejections of the claims are also rebutted since modification of the Wewalaarachchi '104 patent to incorporate the teachings of "The Component Object Model", the Drottar patent or the admitted prior art are all undermined by the base reference's specific criticism of modeling.

The Drottar '025 patent is cited for teaching "broadcasting a message from a client over a physical network as part of detecting all devices active on the physical network". This characterization is not exactly accurate and what is taught may be more precisely defined. In an environment comprising a first computer connected to a network (or I/O fabric in the parlance of the Drottar '025 patent), the first computer being equipped with a PCI bus and having input/output (I/O) devices (typically controllers for data storage devices) attached to the PCI bus, an I/O host bridge may be provided connected between the PCI bus and the I/O fabric 328. Additional, remote I/O devices (presumably providing additional data storage) may be accessed over the I/O fabric. Access to these remote I/O devices is transparent to the CPU for the first computer. On initialization of the first computer a bus scan for I/O devices connected to the PCI bus is performed by the CPU. The I/O host bridge, responsive to this scan, generates a query packet to broadcast over the I/O fabric. From responses received back on the I/O fabric, the I/O host bridge constructs a system memory map, including selected attributes of responding devices such as vendor ID and whether the device is interrupt driven. Drottar does not exactly teach detection of all devices, but rather only I/O devices, and this is done with the intention of making the access transparent to each computer's CPU. There also seems to be little motivation for terming the devices attached to the I/O fabric as "clients" in that the computers accessing data can lock a resource. See col. 3, lines 22-31.

Modification of the Wewalaarachchi '104 patent to incorporate the teaching of Drottar raises problems. First, the ability to lock an I/O source provided by Drottar would seem to be inconsistent with assuring real time data streaming as provided by the Wewalaarachchi '104 patent. Yet locking appears required by Drottar to assure that I/O resources all appear local. The I/O devices also generate interrupts. No such authority is given the sources of data in the Wewalaarachchi '104 patent. In Drottar devices appear to be peers on the network while in Wewalaarachchi communication occurs through a gateway. There is no interest by Wewalaarachchi in the data appearing to be local. Wewalaarachchi is simply not a distributed data processing system in the sense of Drottar where devices connected to the network are peers, but rather is a control system. Wewalaarachchi publishes to clients a list of what is available for registration (col. 4, lines 52-65). Thus, there is no need, or use, for subscribers to interrogate the network to construct their own lists.

Independent claims 1, 16 and 21 have been amended to specifically identify implementation of the present invention through models of network class types. Independent claim 5 included the term "model" as originally submitted. In the case of claim 21, this involved substituting the term "model" for the term "abstraction", which in the context of the present application are related terms. In claim 16 the addition of the term model is believed only to clarify what was intended by "acquire". Claim 1 has been amended somewhat more substantively, dropping the formulation "responsive to specification of a network class" to "acquiring models" for at least two classes of networks. This change makes the modeling aspect of the step positive and clearer. This clarifying language should clearly distinguish the definition of the present invention over the teachings of the Wewalaarachchi '104 patent, which is specifically directed away from and avoids any modeling.

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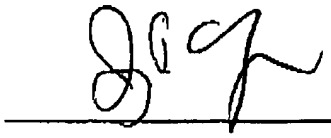
Applicant believes the Claims as amended, or newly submitted, are in condition for allowance and respectfully requests favorable action by the Examiner.

Respectfully submitted,



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